

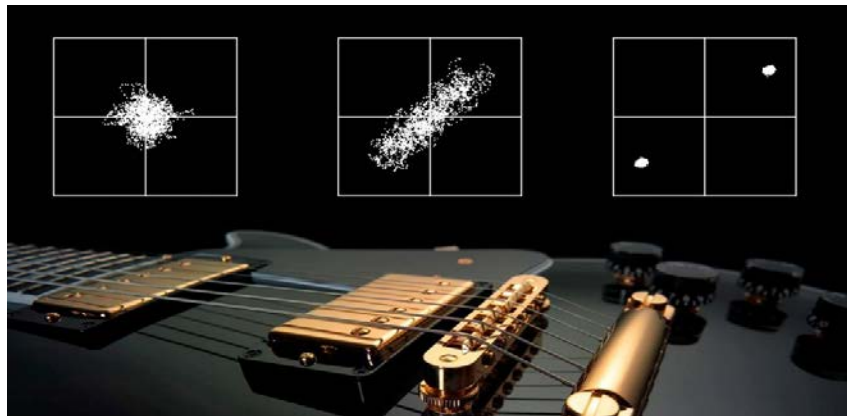
SFB 767 Sonderseminar

Dr. Alexander Eichler

ETH Zurich

Parametric symmetry breaking in a nonlinear resonator

What do quantum limited amplifiers, squeezed laser light and a child on a swing have in common with mechanical logic units, and what can we learn about all of these systems from a guitar string? In this talk, we enter the realm of parametrically driven resonators and discuss the far-reaching consequences of symmetry breaking of the parametric phase states. We find a striking new interplay between parametric excitation and an external driving force that can be exploited for sensitive force detection or control of the so-called parametron. We demonstrate the effects of symmetry breaking in an experimental study based on an electrical guitar string.



Mittwoch 16. November 2016 um 13:30 Uhr in P 912

Ansprechpartner: Eva Weig, 3770

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